

1-6 Quality Control Plan

Quality control for the design integrity and the completeness of project documents are the responsibility of the consultant.

The consultant shall have a quality control plan in effect during all project phases. Plans, specifications, calculations, reports, and other items or documents delivered to OSFP for review shall be clearly addressed in the quality control plan established for the work. The Quality Control Plan shall contain appropriate checklists to assure product quality and control.

The consultant shall complete and deliver to OSFP a project specific quality control checklist with the Initial PS&E submittal. The consultant project manager must sign the checklist to certify completeness and accuracy of the submittal.

Incomplete submittals will not be accepted by OSFP for review. Review will not commence until all the required documents have been received and verified complete by OSFP.

The following checklist is provided to establish a minimum level of quality control during the PS&E phase and shall be used as a basis for the development of the project checklist.

Attachment

1-6.1 Quality Control Plan Checklist





Attachment 1-6.1

Quality Control Plan Checklist—Page 1 of 6

PROJECT INFORMATION

EA:		Date:		
District: County:		County:	Route:	KP(PM):
Consu	Consultant:			
Consultant Project Manager:				
DESIGN				
Design calculations, independent check calculations, and supporting documentation are bound and properly identified.				
	Appropriate registration seals and signatures are shown on design and check calculations.			
	Designer and Checker have resolved and documented all design, details and layout differences.			

PLANS

ESC formatted plan sheets are used for the project plans.
Plans conform to CALTRANS drafting standards.
All plan sheets are complete with names, signatures and registration seal shown in appropriate locations.
All sheets are readable when reduced in size.
Applicable Standard Plans are listed, and appropriate references are included in the plans.
Specifications, proprietary items or trade names are not shown on plans.
Terminology on plans matches item descriptions in the estimate, the Special Provisions and the Standard Specifications.
Standard abbreviations and symbols are used.
Stage construction and traffic control are shown if applicable.
Plans and details for structures are in accordance with applicable checklists shown in the Bridge Design Details Manual.





Attachment 1-6.1

Quality Control Plan Checklist—Page 2 of 6

Cross-references on plans are verified.
Bridge plans and road plans are checked for consistency in details.
Road plans reviewed for special designed retaining walls, sound walls, sign structures, and other special designed features, which require OSFP review.
Spellings and abbreviations are checked.
Standard Detail Sheets or modifications to Standard Detail Sheets are in agreement with the details on plans.
Existing and proposed utilities are shown and owners are identified. Project conforms to CALTRANS policy on high and low risk utilities.
Log of Test Borings are included in Plans.
Properly formatted As-Built Log of Test Borings Sheets are included as appropriate.
Foundation selection and design are consistent with the recommendations in the Foundation Report.
Signature of the Geotechnical Professional is shown on Foundation Plan.

SPECIAL PROVISIONS

The project Special Provisions conform to the CALTRANS PS&E Guide.
Appropriate registration seals and signatures included in Special Provisions signature sheet.
All information is clear and legible.
Item list with item descriptions, item numbers, units of pay and item pay codes are included, and all items of work are covered in the Special Provisions.
Current, edited Standard Special Provisions (SSPs) are used and hidden text is shown.
Bridge and Road Special Provisions are checked for consistency.
Measurement and payment clauses are included or referenced for all contact items.
Standard style and format is used, especially for measurement and payment clauses.
Use of trade names is in accordance with CALTRANS policy.
Completed Memo to Specification Engineer/Estimator is included.





Attachment 1-6.1

Quality Control Plan Checklist—Page 3 of 6

ESTIMATE

Quantity calculations and independent quantity check calculations are bound and properly identified.
All information clear and legible.
Completed CALTRANS Marginal Estimate Forms and Quantity Summary Forms are included for each structure.
Quantity values summarized on forms are consistent with quantity calculations.
Quantity calculations and independent check calculations are resolved within allowable tolerances.
Estimate quantities are appropriately rounded.
Standard Contract items are used from BEES Coded Contract Item Lists. Code numbers and descriptions shown.
Standard units of measure used.
All items of work covered by Contract Item, Supplemental Funds or State Expense.
State-Furnished materials, specialty items and supplemental work listed in Special Provisions are included in the estimate.
Price and quantity supporting information included for Lump Sum items. (i,e. calculations for cubic meters of concrete removal items or calculations for kilograms of prestressing steel for prestressed cast-in-place concrete items.)
Reasonable unit prices included
Working day schedule included.

LATE PLAN CHANGES

Design calculations, independent check calculations, and supporting documentation prepared and submitted.
Bridge plans and road plans are checked for consistency in details.
Changes are consistent with the recommendations in the Foundation Report.
Special Provisions modified as necessary.
Quantities and estimates revised as necessary.





Attachment 1-6.1

Quality Control Plan Checklist—Page 4 of 6

GENERAL

Typical Cross-sections, layouts, profile grades, superelevations, contour grades, and structure plans are consistent with approved project geometrics and current road plans.
On structure projects, with PS&E produced by two or more consultants the following has been verified:
[] Plans and details are coordinated and are consistent
[] Special Provisions are consistent with all plans
[] Contract Item List matches plans and Special Provisions
[] Unit prices are consistent in all submittals
[] All submittals bound and identified
Railroad requirements are incorporated.
Justification for non-standard items of work is provided.





Attachment 1-6.1

Quality Control Plan Checklist—Page 5 of 6

DESIGNER AND DESIGN CHECKER REGISTRATION NUMBERS

List the name, registration numbers and registration expiration date of the designer and the design checker for each structure in the project

Bridge or Structure	Designer	Design Checker	
Name	Registration Number	Registration Number	
Number	Expiration Date	Expiration Date	
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Attachment 1-6.1

Quality Control Plan Checklist—Page 6 of 6

SPECIFICATION ENGINEER REGISTRATION NUMBER				
List the name, registration number and registration expiration date of the specification engineer or the engineer under whose direction the Contract Special Provisions were prepared.				
Name:	No:		Date:	
PROJECT MANAGER'S STATEMENT AND SIGNATURE [] PS&E Submittal is complete and ready for transmittal to OSFP				
Project Manager:		Date:		